CLAIMS

WHAT IS CLAIMED IS:

1. A medical article comprising an implantable substrate having a coating, the coating including an ABA or an AB block copolymer, the block copolymer having moieties A and B, wherein one of the moieties produces a biological response and the other moiety provides the block copolymer with structural functionality.

2. The medical article of Claim 1, wherein the medical article is a stent.

3. The medical article of Claim 1, wherein block A is the biological moiety, and block B is the structural moiety.

4. The medical article of Claim 1, wherein block B is the biological moiety, and block A is the structural moiety.

5. The medical article of Claim 1, wherein the biological moiety is selected from a group consisting of poly(alkylene glycols), poly(ethylene oxide), poly(ethylene oxide-co-propylene oxide), poly(N-vinyl pyrrolidone), poly(acrylamide methyl propane sulfonic acid) and salts thereof, sulfonated dextran, polyphosphazenes, poly(orthoesters), poly(tyrosine carbonate), hyaluronic acid, hyaluronic acid having a stearoyl or palmitoyl substitutent group, poly(ethylene glycol)-hyaluronic acid, poly(ethylene glycol)-hyaluronic acid-stearoyl, poly(ethylene glycol)-hyaluronic acid-palmitoyl, heparin, poly(ethylene glycol)-heparin, and copolymers thereof.

6. The medical article of Claim 5, wherein the poly(alkylene glycol) is selected from a group consisting of poly(ethylene glycol), poly(propylene glycol), poly(tetramethylene

glycol), a graft copolymer of poly(L-lysine) and poly(ethylene glycol), and copolymers thereof.

7. The medical article of Claim 1, wherein the structural moiety comprises poly(caprolactone), poly(butylene terephthalate), poly(ester amide), poly(lactic acid),or copolymers thereof.

8. The medical article of Claim 1, wherein the block copolymer is selected from a group consisting of poly(ethylene-glycol)-block-poly(caprolactone)-block-poly(ethylene-glycol), poly(caprolactone)-block-poly(ethylene-glycol)-block poly(caprolactone), poly(ethylene-glycol)-block-poly(butyleneterephthalate)-block-poly(ethylene-glycol), poly(butyleneterephthalate)-block-poly(ethylene-glycol)-block poly(butyleneterephthalate), poly(ethylene-glycol)-block-poly(butyleneterephthalate), poly(ethylene-glycol)-block-poly (lactic acid)-block-poly(ethylene-glycol), poly (lactic acid)-block-poly(ethylene-glycol)-block-poly(lactic acid) and blends thereof.

9. The medical article of Claim 1, additionally comprising a first biologically active agent incorporated into the coating.

10. The medical article of Claim 1, additionally comprising an active agent conjugated to the block copolymer.

11. The medical article of Claim 10, wherein the active agent conjugated to the block copolymer is diazenium diolate.

12. A method for fabricating a medical article, the method including applying a coating on at least a portion of an implantable substrate, the coating including an ABA or an AB block copolymer, wherein one of the moieties in the block copolymer produces a

biological response and the other moiety provides the block copolymer with structural functionality.

13. The method of Claim 12, wherein the medical article is a stent.

14. The method of Claim 12, wherein block A is the biological moiety, and block B is the structural moiety.

15. The method of Claim 12, wherein block B is the biological moiety, and block A is the structural moiety.

16. The method of Claim 12, wherein the biological moiety is selected from a group consisting of poly(alkylene glycols), poly(ethylene oxide), poly(ethylene oxide-co-propylene oxide), poly(N-vinyl pyrrolidone), poly(acrylamide methyl propane sulfonic acid) and salts thereof, sulfonated dextran, polyphosphazenes, poly(orthoesters), poly(tyrosine carbonate), hyaluronic acid, hyaluronic acid having a stearoyl or palmitoyl substitutent group, poly(ethylene glycol)-hyaluronic acid, poly(ethylene glycol)-hyaluronic acid-stearoyl, poly(ethylene glycol)-hyaluronic acid-palmitoyl, heparin, poly(ethylene glycol)-heparin, and copolymers thereof.

17. The method of Claim 16, wherein the poly(alkylene glycol) is selected from a group consisting of poly(ethylene glycol), poly(propylene glycol), poly(tetramethylene glycol), a graft copolymer of poly(L-lysine) and poly(ethylene glycol), and copolymers thereof.

18. The method of Claim 12, wherein the structural moiety comprises poly(caprolactone), poly(butylene terephthalate), poly(ester amide), poly(lactic acid), or copolymers thereof.

19. The method of Claim 12, wherein the block copolymer is selected from a group consisting of poly(ethylene-glycol)-block-poly(caprolactone)-block-poly(ethylene-glycol), poly(caprolactone)-block-poly(ethylene-glycol)-block poly(caprolactone), poly(ethylene-glycol)-block-poly(butyleneterephthalate)-block-poly(ethylene-glycol), poly(butyleneterephthalate)-block-poly(ethylene-glycol)-block poly(butyleneterephthalate), poly(ethylene-glycol)-block-poly(butyleneterephthalate), poly(ethylene-glycol)-block-poly (lactic acid)-block-poly(ethylene-glycol), poly (lactic acid)-block-poly(ethylene-glycol)-block-poly(lactic acid) and blends thereof.

20. The method of Claim 12, additionally comprising a first biologically active agent incorporated into the coating.

21. The medical article of Claim 12, additionally comprising an active agent conjugated to the block copolymer.

22. The medical article of Claim 21, wherein the active agent conjugated to the block copolymer is diazenium diolate.

23. A medical article comprising an implantable substrate having a coating, the coating comprising phosphoryl choline or polyaspirin.